

Application No.: 09/919,877  
Amdt. Dated: July 20, 2006  
Reply to Office Action Dated: March 27, 2006

Attorney Docket No. CMF/D, 10023  
Page 2 of 21

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

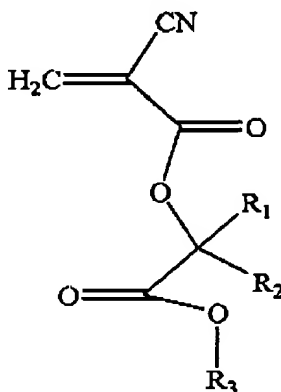
### **Listing of Claims:**

Claims 1-73 (Canceled).

Claim 74 (Currently amended) A biocompatible adhesive composition comprising:  
a first monomer species comprising an alkyl ester cyanoacrylate,  
a second monomer species different from the first monomer species comprising an alkyl  $\alpha$ -cyanoacrylate, and  
a polymerization initiator or accelerator comprising a quaternary amine,  
wherein the first monomer species has a first polymer absorption rate and the second monomer species has a second polymer absorption rate different from the first polymer absorption rate and the biocompatible adhesive composition has a third polymer absorption rate different from the first and second polymer absorption rates.

Claim 75 (Previously Presented) The biocompatible adhesive composition of claim 74, wherein the first monomer species and the second monomer species have different polymer absorption rates such that a polymer absorption rate of a faster absorbing monomer species is at least 10% faster than a polymer absorption rate of a slower absorbing monomer species.

Claim 76 (Previously Presented) The biocompatible adhesive composition of claim 74, wherein said alkyl ester cyanoacrylate has the formula



Application No.: 09/919,877  
Amdt. Dated: July 20, 2006  
Reply in Office Action Dated: March 27, 2006

Attorney Docket No. CMF12,10023  
Page 3 of 21

wherein  $R_1$  and  $R_2$  are independently H, a straight, branched or cyclic alkyl group, or are combined together in a cyclic alkyl group, and  $R_3$  is a straight, branched or cyclic alkyl group.

**Claim 77 (Previously Presented)** The biocompatible adhesive composition of claim 76, wherein  $R_1$  and  $R_2$  are independently H or a  $C_1$ ,  $C_2$  or  $C_3$  alkyl group and  $R_3$  is a  $C_1$ - $C_{16}$  alkyl group.

**Claim 78 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein said alkyl ester cyanoacrylate is selected from the group consisting of butyl lactoyl cyanoacrylate, butyl glycoloyl cyanoacrylate, isopropyl glycoloyl cyanoacrylate, ethyl lactoyl cyanoacrylate, and ethyl glycoloyl cyanoacrylate.

**Claim 79 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein said second monomer species is an alkyl  $\alpha$ -cyanoacrylate having an alkyl group of from about 2 to about 12 carbon atoms.

**Claim 80 (Previously Presented)** The biocompatible adhesive composition of claim 79, wherein said second monomer species is selected from the group consisting of octyl  $\alpha$ -cyanoacrylate, hexyl  $\alpha$ -cyanoacrylate, butyl  $\alpha$ -cyanoacrylate and ethyl  $\alpha$ -cyanoacrylate.

**Claim 81 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein a weight ratio of said first monomer species to said second monomer species is from about 1:99 to about 99:1.

**Claim 82 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein a weight ratio of said first monomer species to said second monomer species is from about 10:90 to about 90:10.

**Claim 83 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein a weight ratio of said first monomer species to said second monomer species is from about 15:85 to about 85:15.

Application No.: 09/919,877  
Amdt. Dated: July 20, 2006  
Reply to Office Action Dated: March 27, 2006

Attorney Docket No. CMED.10023  
Page 4 of 21

**Claim 84 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein a weight ratio of said first monomer species to said second monomer species is from about 25:75 to about 75:25.

**Claim 85 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein said first monomer species comprises butyl lactoyl cyanoacrylate and said second monomer species comprises octyl  $\alpha$ -cyanoacrylate.

**Claim 86 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein said composition further comprises at least one additive selected from the group consisting of anionic stabilizing agents, free radical stabilizing agents, colorants, and plasticizers.

**Claim 87 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein said composition comprises:

- a monomer blend comprising from about 25 to about 40 parts by weight butyl lactoyl cyanoacrylate and from about 60 to about 75 parts by weight octyl cyanoacrylate (OCA);
- at least one anionic stabilizer; and
- at least one radical stabilizer.

**Claim 88 (Previously Presented):** The biocompatible adhesive composition of claim 87, wherein said at least one anionic stabilizer comprises about 25 to about 100 ppm of sulfuric acid and from about 1 to about 50 ppm sulfur dioxide, and said at least one radical stabilizer comprises from about 100 to about 2000 ppm hydroquinone, from about 10 to about 200 ppm p-methoxyphenol, and from about 100 to about 10,000 ppm butylated hydroxyanisole.

**Claim 89 (Currently amended)** The biocompatible adhesive composition of claim 86, wherein said composition further comprises at least one additive selected from the group consisting of anionic stabilizing agents, free radical stabilizing agents and plasticizers, and the additive is present in an amount of 0 up to 25 weight % based on a total weight of the composition.

Application No.: 09/919,877  
 Amdt. Dated: July 20, 2006  
 Reply to Office Action Dated: March 27, 2006

Attorney Docket No. CMED.10023  
 Page 5 of 21

**Claim 90 (Currently amended)** The biocompatible adhesive composition of claim 86, wherein said composition further comprises at least one additive selected from the group consisting of anionic stabilizing agents, free radical stabilizing agents and plasticizers, and the additive is present in an amount of 0 up to 10 weight % based on a total weight of the composition.

**Claim 91 (Currently amended)** The biocompatible adhesive composition of claim 86, wherein said composition further comprises at least one additive selected from the group consisting of anionic stabilizing agents, free radical stabilizing agents and plasticizers, and the additive is present in an amount of 0 up to 5 weight % based on a total weight of the composition.

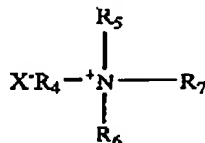
**Claim 92 (Previously Presented)** The biocompatible adhesive composition of claim 74, wherein said composition further comprises about 20 ppm sulfuric acid, 0 to 20 ppm sulfur dioxide, 0 to 2000 ppm hydroquinone, 0 to 180 ppm p-methoxyphenol and 0 to 2000 ppm butylated hydroxyanisole.

**Claim 93 (Previously Presented)** The biocompatible adhesive composition of claim 92, wherein said first monomer species comprises butyl lactoyl cyanoacrylate and said second monomer species comprises octyl  $\alpha$ -cyanoacrylate.

**Claim 94 (Canceled)**

**Claim 95 (Previously Presented)** The biocompatible adhesive composition of claim 74, further comprising a second different polymerization initiator or accelerator.

**Claim 96 (Currently amended)** The biocompatible adhesive composition of claim 74 ~~claim 94~~, wherein the quaternary amine has the formula



Application No.: 09/919,877  
Amdt. Dated: July 20, 2006  
Reply to Office Action Dated: March 27, 2006

Attorney Docket No. CMED.10023  
Page 6 of 21

wherein R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub> and R<sub>7</sub> are each independently H or a substituted or unsubstituted straight, branched or cyclic alkyl group; a substituted or unsubstituted aromatic ring; a substituted or unsubstituted aralkyl group; or a substituted or unsubstituted alkyl or aromatic group including one or more hetero atoms; and X<sup>-</sup> is an anion.

Claim 97 (Currently amended) The biocompatible adhesive composition of claim 74 ~~claim 94~~, wherein the quaternary amine is selected from the group consisting of domiphen bromide, butyrylcholine chloride, benzalkonium bromide and acetyl choline chloride.

Claim 98 (Currently amended) The biocompatible adhesive composition of claim 74 ~~claim 94~~, wherein the quaternary amine is a benzalkonium halide having a chain length from about 12 to about 18 carbon atoms.

Claim 99 (Previously Presented) The biocompatible adhesive composition of claim 74, wherein the polymerization initiator or accelerator polymerizes a mixture of the first monomer species and the second monomer species in less than 3 minutes.

Claim 100 (Previously Presented) The biocompatible adhesive composition of claim 74, wherein the first monomer species and the second monomer species are present in an amount of at least 65 percent by weight of the biocompatible adhesive composition.

Claim 101 (Previously Presented) The biocompatible adhesive composition of claim 74, wherein at least the first monomer species forms a polymer that is absorbable.

Claim 102 (Previously Presented) A polymerized film formed by curing the biocompatible adhesive composition of claim 74.

Claims 103-133 (Canceled)